

DEPUTY MINISTERS TASK FORCE ON PUBLIC SECTOR INNOVATION

ENGAGE → EQUIP → EXPERIMENT

REPORT TO THE CLERK OF
THE PRIVY COUNCIL
2018-2019

INTRODUCTION

Governments around the world face the reality of addressing increasingly complex and horizontal challenges (e.g., climate change, migration, social cohesion, inequality, economic growth, etc.) in measurable and concrete ways. Simultaneously, they are being asked to be more responsive to citizens, accomplish more with the same or fewer resources, and be more accountable in administering public funds. This reality is forcing governments, in turn, to confront deeply rooted cultural norms in an effort to enact innovative approaches to overcome system barriers and deliver results to citizens.

Such is the environment in which the Deputy Minister Task Force on Public Sector Innovation received its new mandate in 2017. Over the course of the past 18 months, we took action in the following two priority areas:

- Advancing core systems transformation in areas such as government programming, procurement, partnership development and human resources; and
- Experimenting with disruptive technologies in the areas such as artificial intelligence and blockchain technologies.

A key part of our renewed mandate saw the establishment of a public sector innovation leadership development opportunity for mid-level public servants. Government of Canada Entrepreneurs (GCEs) were selected by their Deputy Minister and participated as full members of the Task Force. They worked tirelessly to advance Task Force-related projects and promote public sector innovation while receiving specialized training to give them the tools to be leaders within this new operating environment.

This year-end report highlights our accomplishments over the past 18 months. It speaks to the journey of the federal public service towards embracing public sector innovation practices, and highlights areas where we took action to “test and learn.”

Recognizing the benefits of perspectives from experts inside and outside of government, we actively engaged with colleagues from federal departments and agencies, provinces and municipalities, academia and the private sector to share knowledge and best practices, build capacity and have open discussions about the challenges in the system that we must overcome.

As part of the medium-term planning process, the Task Force examined several issues (e.g., artificial intelligence, results-based programming approaches and human resources) and identified a series of recommendations to give license for public servants to innovate, build their capacity, increase the use of new tools and approaches and deepen partnerships.

What is clear is that public servants are passionate about delivering results for Canadians, and are excited about the opportunity to explore, test and scale new approaches, technologies and ways of working. However, structural impediments to change in many areas of the public service persists. While we recognize that innovating in the public service is hard work, we must continue this work in a pragmatic, informed and comprehensive manner if we want to see public sector innovation thrive and grow in the future.

“[T]here is considerable activity taking place, supported by many passionate people trying to achieve better outcomes for Canadians. However, the overall picture of the public sector innovation system shows that it is still relatively fragmented, in that most actors are experiencing the same system in different ways. There is a lack of consistency in how innovation is understood as a concept, a process and an outcome. While there has been a notable rise in the sophistication and co-ordination of activity, this has yet to broadly penetrate the core operations of government.”

MEMBERSHIP

DEPARTMENT	DEPUTY MINISTER	GC ENTREPRENEUR
Employment and Social Development Canada	Graham Flack (co-chair) Benoît Robidoux	Mathieu Audet David Baines
Privy Council Office	Matthew Mendelsohn (Co-Chair) Janine Sherman Catrina Tapley	John Kehoe Dr. Michael Haber
Canada Revenue Agency	Christine Donoghue	Adrian Senn
Environment and Climate Change Canada	Stephen Lucas	Joyce Silver
Infrastructure Canada	Kelly Gillis	Lucas Dixon
Transport Canada	Michael Keenan	Anthony Jaz
Shared Services Canada	Paul Glover Sarah Paquet	Gabriel Cossette
Canada Economic Development for Quebec Regions	Manon Brassard	Julien Aubin-Beaulieu
Innovation , Science and Economic Development Canada	Paul Thompson	Ismar Fejzic
National Defence	Gordon Venner	Hamid Boland
Department of Indigenous Services Canada	Sony Perron	Victoria McLean
Natural Resources Canada	Shawn Tupper	Minh On
Canada Food Inspection Agency	Dr. Siddika Mithani	Laura Portal Avelar
Public Services and Procurement Canada	Janet King	---
Treasury Board Secretariat of Canada	Nancy Chahwan Alex Benay Erin O’Gorman	---
Justice Canada	François Daigle	---
Agriculture and Agri-Food Canada	---	Leanne Lalonde
Canadian Heritage	---	Cédric Jean-Marie

UNDERSTANDING THE PUBLIC SECTOR INNOVATION ECOSYSTEM

The Task Force engaged innovators and experts from within and outside the public service to seek out novel solutions and approaches to improve upon the status quo.

With an open by default approach, presentations from internal and external experts on domestic and global trends affecting our policy environment were discussed and made available on GCpedia for all public servants.

ENGAGING THE ARTIFICIAL INTELLIGENCE COMMUNITY

Previously viewed as an emerging technology, artificial intelligence (AI) is quickly becoming mainstream, including for governments. The Task Force embraced this subject area, discussing opportunities for the practical application of AI within government operations, and how departments can deploy this technology to create more effective and efficient services. We heard



Cameron Schuler, Alberta Machine Intelligence Institute

from Cameron Schuler, formerly of the Alberta Machine Intelligence Institute, who noted that Canada is a world leader in AI research and development, presenting an opportunity for the federal government to capitalize on this expertise.

Departmentally, Immigration, Refugees and Citizenship Canada, Employment and Social Development Canada, and Statistics Canada presented on their current experiments with using AI and machine learning on issues such as processing times, case management and data analysis. In addition, Treasury Board Secretariat worked with the Task Force in the development of the procurement approach to establish a standing offer of pre-qualified AI service providers for federal departments to access.

What is clear is that the Government of Canada is at the beginning of applying AI into their work. It is expected that ongoing work will help overcome barriers (e.g., privacy framework, skills/capacity of



GC Entrepreneurs Minh On and Julien Aubin-Beaulieu

GC ENTREPRENEURS EXPERIMENT WITH DISRUPTIVE TECHNOLOGIES

The **AI and Official Languages** Project looked to determine the efficiency and efficacy of modern AI tools with the aim of developing a pilot within TBS' Open by Default Portal.

A **Scan of Government of Canada AI Practitioners** identified the need for greater coordination across departments.

The **Digital Identity** Project explored whether blockchain technology could advance digital identification. The resulting Verified.Me proof of concept assessed the potential for improved customer service and more efficient digital services.

public servants, framework for the ethical use of AI, etc.) and aid in the broader adoption of AI.

UNDERSTANDING PARTNERSHIP MODELS

Traditionally, the public service has defined its partnership approach through formalized instruments and processes such as contribution agreements, legal documents and memoranda of agreement. There is a growing understanding, however, that fostering partnerships with traditional and non-traditional experts will help create more impactful policies, programs and services.

EXPLORING OUTCOME-BASED APPROACHES

Over the past two years, the Task Force played a key role in how outcomes-based approaches could be integrated into transfer payment programs.



Diane Finegood, Professor, Simon Fraser University and Andrea Barrack, Vice President, Global Corporate Citizenship, TD Bank Group

Task Force discussions provided a venue for TBS to test the model for utilizing outcomes-based approaches ultimately resulting in the Generic Terms and Conditions for Innovative Use of Transfer Payments. The Task Force also developed a business case that ultimately led to the Budget 2017 announcement of Impact Canada, a whole-of-government approach designed to accelerate the adoption of results-based programming approaches such as challenge prizes. With uptake of these approaches increasing across government, the Task Force had the opportunity to hear from a number of departments about how these initiatives are unfolding, including Infrastructure Canada's Smart Cities Challenge, NRCan's suite of Clean Tech Impact Challenges, and Health Canada's Drug Checking Technology Challenge.

MODERNIZING PROCUREMENT

With more than \$20 billion spent annually through federal procurement exercises, it is one of the key levers the federal government can use to stimulate innovation. However, the procurement system, by its very nature, is complex and process heavy. Public Servants have been testing new and agile approaches to procurement, as well as working on strategies for green, social and Indigenous procurement. To support the development of early-stage, pre-commercial innovations in Canada, the Task Force received updates on the work of Innovative Solutions Canada, a new procurement program where the federal government acts as a "first customer" for Canadian innovators and entrepreneurs. What is clear coming out of these discussions is that procurement modernization efforts must remain a priority for the public service into the foreseeable future.



Christopher Duschenes, Crown-Indigenous Relations and Northern Affairs Canada



A CHALLENGE PRIZE TO HELP WITH THE OPIOID RESPONSE

The opioid crisis currently gripping Canada has no simple or singular solution. Health Canada, with the support of GCEs, initiated a challenge prize as a key component of the federal response. The Drug Checking Technology Challenge is designed to accelerate the development of a rapid, accurate, easy to use, and low-cost testing device that can be used as a harm reduction tool, and, ultimately, stop death by opioids.



STRATEGICALLY LINKING FEDERAL LEVERS

The Sky's the Limit Challenge is incentivizing the development of bio-jet fuel to cut pollution and fight climate change. Recognizing that the federal government purchases large quantities of jet fuel for the federal fleet of airplanes, GCEs were asked to explore options on how the Government of Canada could purchase bio-jet fuel or other forms of sustainable aviation fuel to help efforts to green government operations and possibly capitalize on the outcomes of the Sky's the Limit Challenge.

INFLUENCING THE PUBLIC SECTOR INNOVATION AGENDA

Public sector innovation efforts require a deep understanding of organizational culture and the factors that will responsibly promote change. In this context, the Task Force played a proactive role in shaping some key public sector policies and enabling frameworks that will help evolve the work of the federal government.

HARNESSING OPPORTUNITIES AROUND DATA AND DIGITAL TECHNOLOGIES

The importance of data and data analysis in any organization – private, non-profit or public – cannot be understated in generating insights for better decision-making. The Task Force played heavily in the development of A Data Strategy Roadmap for the Federal Public Service, providing advice and feedback on three separate occasions. The approach of using the Task Force as a platform for ongoing consultation and feedback proved extremely helpful in setting the vision for how the federal government collects, manages and governs data while ensuring the recommendations were practical, meaningful and attainable.

Similarly, the Task Force had the opportunity to influence the enabling work on artificial intelligence undertaken by the Treasury Board Secretariat. The



Michael Karlin,
Treasury Board Secretariat

Task Force shaped the Directive on Automated Decision-Making to ensure its scope and application were framed appropriately to reflect the diverse operational realities of departments while not detracting from the Directive's objective of using automated decision systems in a responsible and ethical manner.

ACCELERATING, DEEPENING AND INSTITUTIONALIZING EXPERIMENTATION

In fall 2018, the Task Force undertook a “stock take” exercise on progress pursuant to the mandate commitment to “devot[e]...program funds to experimenting with new approaches to existing problems and measuring the impact of their programs.” While some progress has been made, including placing greater emphasis on measurement, evaluation and innovation in policy and program design and service delivery, it is clear that experimentation has yet to systematically take hold within the federal bureaucracy.



Rodney Ghali (Privy Council Office) and Samantha Tattersall (Treasury Board Secretariat), ADM Committee on Experimentation co-chairs

Following this discussion, the ADM Committee on Experimentation undertook consultations and medium-term planning work to uncover meaningful ways in which the public service can accelerate, deepen and institutionalize results-based, experimental approaches in policy, program and service delivery domains. From advancing partnerships and capacity within and outside government to allocating funding towards initiatives that have demonstrated impact to rethinking governance models for effective implementation, a suite of recommendations was developed in areas such as capacity and skills development, recruitment, understanding and measuring outcomes, and enabling policies and practices to overcome internal barriers. This work will be finalized in summer 2019 and feed into departmental policy development and transition advice.



GC Entrepreneur Hamid Boland

GC ENTREPRENEURS DEVELOP A PILOT TO IMPROVE WORKPLACE WELL-BEING

The **Workplace Well-being Pilot Project** explored whether technology could be leveraged to encourage healthier lifestyles and well-being within the public service. The project team partnered with Carrot Rewards to assess the cost-effectiveness and feasibility of using a rewards-based mobile application (app) to better engage with employees and collect closer to real-time data.

Funded by the Department of National Defence, a pilot trial with 1470 participants from across 4 departments was conducted to: (1) collect baseline data on workplace well-being; (2) provide opportunities and resources to improve employee resiliency; and (3) capture changes in well-being over time.

The project was the runner-up of Apolitical's International Health Lifestyle in the Workplace Award for 2019. The results of the pilot will provide valuable insights into the development of innovative approaches that can be leveraged by government programs to promote and enhance workplace well-being.

GC ENTREPRENEURS TAKE ON HUMAN RESOURCES



GC Entrepreneurs Ismar Fejzic, Laura Portal Avelar, Cédric Jean-Marie, and John Kehoe

The **Innovative Staffing Project** conducted an environmental scan with the objective of identifying what is working and what is not. The two main recommendations in the form of pilot projects were: addressing the end-user experience for both employees and managers in navigating the various initiatives available to them; and, exploring the use of data visualization technologies to gain greater insight into the movement of people across the government in order to feed into more targeted decision making in this area.

The **Mobility Out and Back In (MOBI)** project aimed to better understand how different people in the HR ecosystem use tools like Interchange or Leave Without Pay to gain professional experiences in other sectors and then return. The Task Force was very supportive of the recommendations to better promote Interchange and experiment with new MOBI tools.

INCREASING PUBLIC SERVICE INNOVATION CAPACITY

The Task Force's new mandate provided a unique opportunity to upskill the federal public service and build the capacity required to support experimental programming through the recruitment of GC Entrepreneurs.

Working in small, diverse teams across departmental lines, GCEs are, themselves, experimenting with new ways of advancing projects that do not have a natural home within a specific department or agency. In addition to working on a portfolio of 11 Task Force projects, many of which are highlighted in this report, they acted collectively and individually as ambassadors for public sector innovation by raising awareness and inspiring public servants to apply new tools and approaches to their work. They led outreach and information sessions at events such as the Government of Canada Innovation Fair, presented to communities of practice like the HR Council and participated in countless discussions within departmental settings to help advance innovative initiatives.

As an added benefit, the GC Entrepreneurs received leadership training and support from Nesta's States of Change, a public sector innovation learning approach designed to strengthen innovation capacity across governments. This unique "learning by doing" approach provided access to a cadre of worldwide public sector innovation leaders that pushed GCEs to take a well-informed, disciplined and responsible approach to advancing Task Force projects.



Jesper Christiansen, Head of Strategy and Development, NESTA

THE GCE MODEL: EXPERIMENTING WITH CROSS-DEPARTMENTAL TEAM-BASED APPROACHES IN THE PUBLIC SERVICE

The GCEs were not physically co-located as a group. Instead, they remained located within their respective departments or agencies, resulting in a distributed "team of teams" model across the National Capital Region and in three regional locations (Quebec City, Montreal, Toronto). To make this model succeed, the GCEs used technology to communicate and manage work priorities:

- Slack, a collaboration platform that allows users to communicate in channels, was used to bring together communications that would often take place over email, text or instant messaging.
- Sharepoint, a web-based document management platform, was used as a key tool for creating, reviewing and iterating on project documents.
- Trello, a project management tool, helped GCEs to dynamically manage their projects and workload across many responsibilities.



THE DIFFERENT ROLES OF GC ENTREPRENEURS



BRIDGE BUILDERS

Finding common ground and creating shared ownership

GCEs played a pivotal role in ensuring the Task Force's work is reflective of the needs and concerns of the government innovation ecosystem. By sharing contacts, tools, and information with people inside and outside of their departments, they created a valuable network of change agents, thought leaders and innovation practitioners.



INTRAPRENEURS

Using informed arguments to create opportunities

As the project arm of the Task Force, GCEs worked on multiple cross-cutting projects in support of experimentation and innovation to further our understanding of obstacles to innovation that persist in the public service.



BROKERS

Finding opportunities to connect

GCEs played a champion role by promoting the work of the Task Force and establishing connections with key innovation communities such as the Canada School of Public Service's innovation hubs and labs community of practice, the Policy Community of Practice, Canada's Free Agents and OneTeamGov Canada.



STORYTELLERS

Working in the open to share experience and build knowledge

GCEs did almost all of their work in the open, blogging about their work, learnings and ideas, and seeking feedback and perspectives from across the public service. They developed a strong presence on Twitter and Medium that further expanded their work.



TECH CHAMPIONS

Understanding technological developments and using their potential

GCEs also played a role in advancing corporate priorities related to technology and public service renewal. They learned to work with common social media platforms and collaboration tools such as Slack and Trello to coordinate their work, promote their projects and engage with the broader community of innovators outside the public service.



VALUE AMBASSADORS

Articulating the value of new approaches and solutions for decision-making

GCEs spend 50% of their time doing work in support of the departmental priorities. For many GCEs, this time was dedicated to supporting their respective department's innovation agenda, including: assisting in the development of new innovation hubs; launching employee innovation programs; partnering on hackathons; and collaborating on wellness and culture building initiatives.

LOOKING AHEAD

Throughout history, successful organizations have been those that have innovated. As a guardian institution, the public service must balance the need for innovation with the imperative of reliably delivering services to Canadians. Public sector innovation is important and needs to be pursued as we look to address increasingly complex and horizontal problems.

The Task Force dug into some of the complex factors that allow for, and detract from, public sector innovation. Disruptive technologies, like artificial intelligence, are approaching a tipping point, which is why the Task Force helped frame some of the early guidance to help the public service understand how to work with these technologies in a responsible and ethical way. A concerted focus on how the public service collects, manages and governs data – including the opportunities for it to drive better decisions and support the delivery of better programs and services – was a key factor in the Task Force’s engagement on the report A Data Strategy Roadmap for the Federal Public Service. And, an ongoing focus on experimentation led to tangible advice and action that the public service can advance with a goal of accelerating, deepening

and institutionalizing results-based approaches within departments and across the federal government.

Reflecting on the accomplishments of the Task Force since November 2017 have led to two observations. First, public sector innovation is not easy. It requires discipline, dedication and an ability to understand where value can be added into the core functions of the public service. This “value” is the key to its systematic adoption over time. Second, public sector innovation must be done in a responsible and pragmatic manner whether it is in the implementation of new approaches, the engagement of partners inside and outside of government or the ability to take stock of progress and recalibrate as needed.

Looking forward, the Task Force is eager to continue its efforts to promote public sector innovation, looking for ways to add value into the core functions of the public service. While progress on this front will take time, it is clear the Task Force is keen to increase its tempo of progress in the coming year.